



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CHICAGO REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605



LABORATORY  
ACCREDITATION  
BUREAU

ACCREDITED ISO/IEC 17025

Certificate # L2280 Testing

Date: 12/20/2017

Subject: Review of Region 5 Data for CSD

To: Water Division, US EPA Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604

From: Laurence Wong, SEEP Analyst  
US EPA Region 5 Chicago Regional Laboratory

Analyst is a (check one): ☒ SEE Enrollee ☐ ORISE Participant ☐ Contractor

Grantee Organization or Contract Company: NAPCA

Assigned to the Chicago Regional Laboratory at U.S. EPA, Region 5

Reviewed by (initials, date): WF 12/20/17, chemist at Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with the EPA QA/G-8 *Guidance on Environmental Data Verification and Data Validation* and the U.S. EPA Region 5 RMD QMP, CRL performs data verification on all the data generated internally. CRL does not perform data validation or quality assessment procedures.

This report was reviewed and the information provided herein accurately represents the analysis performed.

X Laurence Wong December 20, 2017

Please contact the analyst with any technical report issues, Robert Thompson at (312)-353-9078 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for: CSD

Data Coordinator and Date Transmitted

Analyses included in this report:

Solids, TDS

Solids, TSS



Environmental Protection Agency Region 5  
**Chicago Regional Laboratory**

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, US EPA Region 5  
77 West Jackson Boulevard  
Chicago IL, 60604

Project: CSD  
Project Number: 01CB2018  
Project Manager: Cheryl Burdett

Reported:  
Dec-20-17 15:29

## ANALYSIS CASE NARRATIVE - TSS

### General Information

Twenty-three (23) water samples under Work Order #1710017 were received on October 26, 2017. Six (6) of them were for Total Suspended Solids (TSS) analysis. The designated analyst was Laurence Wong; and the contact person, Francis Awanya (phone number: 312-886-3682).

The samples were received in good conditions: on ice, at 0.4 to 1.9°C, well within the QC limit of 6.0°C. Their preparation and analysis began on November 1, 2017, following procedure CRL SOP AIG018 Version #3 (based on Standard Method 2540 D), and were completed on November 2, 2017. The samples were kept in refrigerator at  $\leq 6^{\circ}\text{C}$  at all time except when in use. The sample holding time limit was met. Other pertinent information is provided in the final analysis report.

### Sample Analysis and Results

Three (3) samples had fine, light and fluffy green-algae-like materials floating inside them. These materials were likely the significant portions of their suspended solids contents. These samples yielded detectable TSS results of 10 mg/L (Sample #1710017-20, client designation S16), 14 mg/L (Sample #1710017-21, client designation S17) and 17 mg/L (Sample #1710017-23, client designation D03). Three (3) other samples all yielded results less than the detectable limit of 5 mg/L.

No specific client Quality Assurance Project Plan for this analysis is archived in the QAPPs folders in the CRL's share drive G. All the analysis requirements are thus defaulted to the CRL guidelines. The data reported herein meet the requirements and limits referenced in the afore-mentioned CRL SOP.

### Quality Control

All quality control (QC) audits followed CRL guidelines. The required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the CRL's QC limits



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Project Manager: Cheryl Burdett

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Dec-20-17 15:29

## ANALYSIS CASE NARRATIVE - TDS

### General Information

Six (6) of the twenty-three (23) water samples received on October 26, 2017 under Work Order #1710017 were for Total Dissolved Solids (TDS) analysis. The designated analyst was Laurence Wong; and the contact person, Francis Awanya (phone number: 312-886-3682).

The samples were received in good conditions: on ice, at 0.4 to 1.9°C, well within the QC limit of 6.0°C. Their preparation and analysis began on November 1, 2017, and were completed on November 22, 2017, following procedure CRL SOP AIG017 Version #4 (based on Standard Method 2540 C). The samples were kept in refrigerator at  $\leq 6^{\circ}\text{C}$  at all-time except when in use. The sample holding time limit was met. Other pertinent information is provided in the final analysis report.

### Sample Analysis and Results

One (1) sample (#1710017-22, client designation B03) had a result less than the detectable limit of 20.0 mg/L. The results of the other five (5) samples ranged from 116 mg/L (Sample #1710017-14, client designation S19) to 156 mg/L (Sample #1710017-21, client designation S17).

No specific client Quality Assurance Project Plan for this analysis is archived in the QAPPs folders in the CRL's share drive G. All the analysis requirements are thus defaulted to the CRL guidelines. The data reported herein meet the requirements and limits referenced in the afore-mentioned CRL SOP.

### Quality Control

All quality control (QC) audits followed CRL guidelines. The required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the CRL's QC limits.



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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S18	1710017-13	Water	Oct-25-17 10:39	Oct-26-17 08:09
S19	1710017-14	Water	Oct-25-17 10:58	Oct-26-17 08:09
S16	1710017-20	Water	Oct-25-17 09:22	Oct-26-17 08:09
S17	1710017-21	Water	Oct-25-17 10:02	Oct-26-17 08:09
B03	1710017-22	Water	Oct-25-17 09:46	Oct-26-17 08:09
D03	1710017-23	Water	Oct-25-17 10:09	Oct-26-17 08:09



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**Dissolved Solids, SM 2540C (modified)**  
**US EPA Region 5 Chicago Regional Laboratory**

**S18 (1710017-13) Matrix: Water Sampled: Oct-25-17 10:39 Received: Oct-26-17 08:09**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	122			20.0	mg/L	1	B17J040	Nov-01-17	Nov-01-17

**S19 (1710017-14) Matrix: Water Sampled: Oct-25-17 10:58 Received: Oct-26-17 08:09**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	116			20.0	mg/L	1	B17J040	Nov-01-17	Nov-01-17

**S16 (1710017-20) Matrix: Water Sampled: Oct-25-17 09:22 Received: Oct-26-17 08:09**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	148			20.0	mg/L	1	B17J040	Nov-01-17	Nov-01-17

**S17 (1710017-21) Matrix: Water Sampled: Oct-25-17 10:02 Received: Oct-26-17 08:09**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	156			20.0	mg/L	1	B17J040	Nov-01-17	Nov-01-17

**B03 (1710017-22) Matrix: Water Sampled: Oct-25-17 09:46 Received: Oct-26-17 08:09**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	U			20.0	mg/L	1	B17J040	Nov-01-17	Nov-01-17

**D03 (1710017-23) Matrix: Water Sampled: Oct-25-17 10:09 Received: Oct-26-17 08:09**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Dissolved Solids	136			20.0	mg/L	1	B17J040	Nov-01-17	Nov-01-17



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**Total Suspended Solids, SM 2540 D (modified)**  
**US EPA Region 5 Chicago Regional Laboratory**

**S18 (1710017-13) Matrix: Water Sampled: Oct-25-17 10:39 Received: Oct-26-17 08:09**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	U			5	mg/L	1	B17J041	Nov-01-17	Nov-01-17

**S19 (1710017-14) Matrix: Water Sampled: Oct-25-17 10:58 Received: Oct-26-17 08:09**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	U			5	mg/L	1	B17J041	Nov-01-17	Nov-01-17

**S16 (1710017-20) Matrix: Water Sampled: Oct-25-17 09:22 Received: Oct-26-17 08:09**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	10			5	mg/L	1	B17J041	Nov-01-17	Nov-01-17

**S17 (1710017-21) Matrix: Water Sampled: Oct-25-17 10:02 Received: Oct-26-17 08:09**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	14			5	mg/L	1	B17J041	Nov-01-17	Nov-01-17

**B03 (1710017-22) Matrix: Water Sampled: Oct-25-17 09:46 Received: Oct-26-17 08:09**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	U			5	mg/L	1	B17J041	Nov-01-17	Nov-01-17

**D03 (1710017-23) Matrix: Water Sampled: Oct-25-17 10:09 Received: Oct-26-17 08:09**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Total Suspended Solids	17			5	mg/L	1	B17J041	Nov-01-17	Nov-01-17



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Analyte	Result	Flags/ Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Notes and Definitions**

U Not Detected  
NR Not Reported  
Q QC limit Exceeded